

REMARKS

Applicants respectfully request reconsideration in view of the amendments and the following remarks. Claims 1 and 14 are amended. Accordingly, claims 1-24 are pending in the application.

I. Claims Rejected Under 35 U.S.C. § 112

Claims 1-24 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended claims include the feature of: "a registration request message, which is encrypted by the session key, including said session key encrypted by said public key". The Specification supports sending a registration request encrypted by the session key. It also supports sending the session key encrypted by the public key. However, the claims require that the session key be included in the registration request, and the entire registration message to be encrypted. This feature is not supported in the Specification. In fact, if the session key is included in the message, and the message is encrypted by the session key, the OLT would not be able to access the session key, and it will render the invention inoperable. A correction such that the session key is received at OLT, encrypted only by OLT's public encryption key would be acceptable.

With respect to the § 112, first paragraph rejections of the claims, Applicants have amended independent claim 1 to include the elements of "optical network unit for receiving said discovery gate message and then sending a registration request message including said session key *that is* encrypted by said public key, *with said session key encrypting all fields of the registration request message except for said session key that is encrypted by said public key*, to said optical line terminal" (emphasis added). These amendments clarify the claim language and are supported by page 17, line 24 to page 18, line 1 of the Specification. Moreover, with respect to the "general gate message encrypted by a session key," the elements of "which is encrypted using said public key" have been removed from the claim. Therefore, in light of the

amendments, Applicants submit that § 112, first paragraph issues related to the session key and the general gate message in claim 1 have been resolved.

Moreover, independent claim 14 has been amended to recite analogous elements to those discussed above in claim 1 to overcome the § 112, first paragraph rejection as well. In addition, the respective dependent claims of independent claims 1 and 14 are compliant under § 112, first paragraph because these claims were solely rejection based on their dependencies on claims 1 and 14.

Thus, in view of at least the foregoing reasons, claims 1-24 are compliant under § 112, first paragraph. Accordingly, reconsideration and withdrawal of the rejection of claims 1-24 are respectfully requested.

II. Claims Rejected Under 35 U.S.C. § 103

Claims 1 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Security Model and Authentication Protocol in EPON-based Optical Access Network, (hereinafter “Roh”) by Roh and Kim, published as part of Transport Optical Networks, 2003, Proceedings of the 2003 5th International Conference on 29 June-3, July 2003 (volume 1) in view of Examiner's Official Notice.

In regard to the § 103(a) rejection of claim 1, the Examiner has failed to point out the portion of Roh that teaches or suggests the elements of “the discovery gate message including a public key of the optical line terminal.” Instead, the Examiner has taken Official Notice that it was well known by one of ordinary skill in the art to include the public key of the optical line terminal as “an extra field in a message” simply because “Roh shows that the public key is sent via a message.”

However, as required in MPEP 2144.03, Official Notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. In this case, the Examiner has failed to substantiate that the “inclusion of an extra field in a message to included additional information” was well-known in the art other than saying that “the public key is sent via a message.” Instead, Applicants note that the public key of

the OLT in Roh is disclosed as “[r]ight after sending the GATE message, the OLT sends its own public key certificate included [*sic*] the public key.” See Roh, page 102, 1st paragraph. In other words, Roh requires that the OLT’s public key is *sent in a separate message after the GATE message* (i.e., the second GATE message from the OLT in response to the register request message from the ONU) and, therefore, is not included in the discovery gate message of the OLT as recited in claim 1.

Therefore, in light of the above disclosure, Applicants believe that, instead, the Examiner has improperly relied upon the disclosure of the present invention (see e.g., Fig. 5) to show the inclusion of the public key of the OLT in the discovery gate message. Therefore, the Examiner has premised his taking of Official Notice on improper hindsight bias by relying on the disclosure of the present invention. In particular, as required in MPEP 2142, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned *from the prior art*. However, as discussed above, Roh clearly teaches that the public key of the OLT is sent via a separate message and *not included in the discovery gate message*. In fact, Roh does not even perform encryption related to messages until after a register request message is received by the OLT from the ONU. See Roh, Fig. 3 and Section 4.2.

Consequently, Roh in view of the Examiner’s taking of Official Notice fails to teach or suggest the elements of “the discovery gate message including a public key of the optical line terminal,” as recited in claim 1. Further, Applicants are unable to discern any portion of Stallings that discloses these missing elements. Accordingly, reconsideration and withdrawal of the rejection of claim 1 are respectfully requested.

In regard to independent claim 14, this claim recites analogous elements to those in claim 1 and is patentable over the cited art for at least the foregoing reasons discussed in connection with claim 1. Accordingly, reconsideration and withdrawal of the rejection of claim 14 are respectfully requested.

Claims 2-13, and 15-24 rejected under 35 U.S.C. § 103(a) as being unpatentable over Roh in view of Examiner's Official Notice as applied to claim 1 above, and further in view of Cryptography and Network Security, by W. Stallings, 2nd Edition, 1999 (hereinafter “Stallings”).

In regard to dependent claims 2-13 and 15-24, these claims depend on either base claim 1 or 14 and incorporate the limitations thereof. Therefore, for at least the reasons discussed in connection with claims 1 and 14, Roh and the Examiner's taking of Official Notice fails to teach or suggest each element of claim 2-13. Further, Stallings fails to teach or suggest the missing elements. The Examiner has not cited and Applicants are unable to discern the portion of Stallings that allegedly teaches or suggest the missing elements in claims 1 and 14. Consequently, Roh in view of the Examiner's taking of Official Notice in further view of Stallings fails to teach or suggest each element of claims 2-13 and 15-24 because each of these claims depends on either base claim 1 or 14. Accordingly, reconsideration and withdrawal of the rejection of claims 2-13 and 15-24 are respectfully requested.

CONCLUSION


In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

Respectfully submitted,

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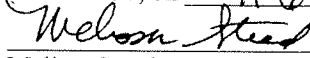
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Melissa Stead 1/16, 2008